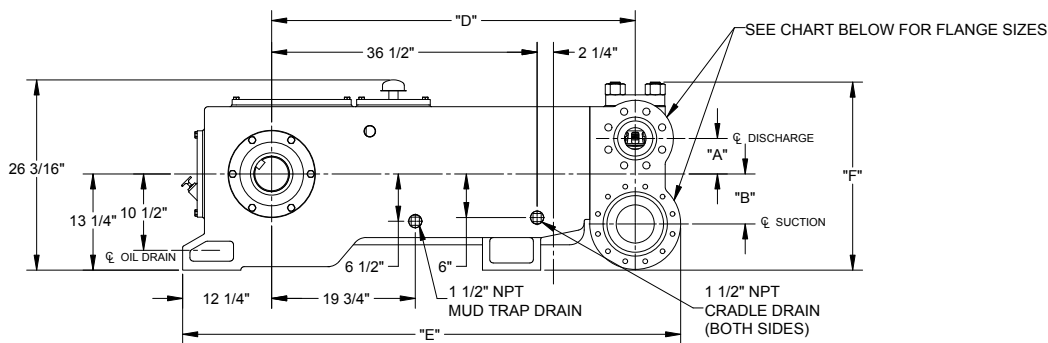
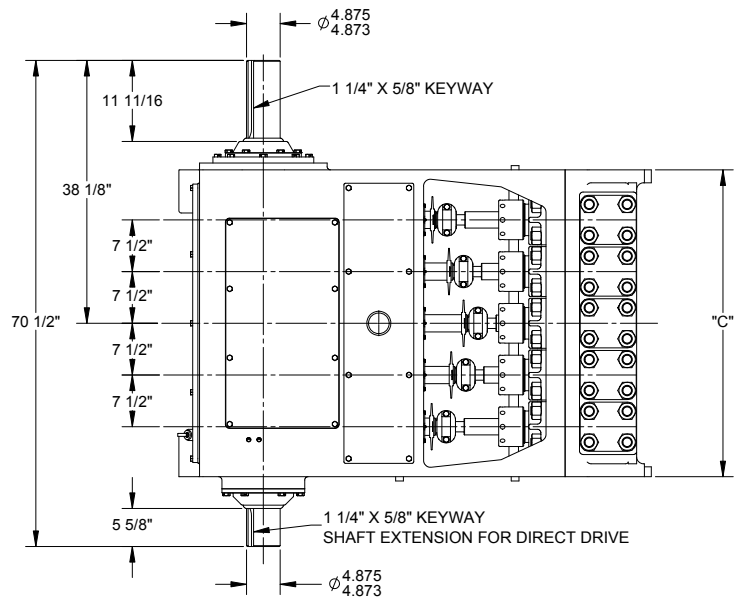


# 415Q-5 Quintuplex Plunger Pump

## Specifications

- Pump size maximum plunger size x stroke length, in. (mm): 4.5 x 5 (102 x 127)
- Rated bhp at 400 rpm (kw): 415 (309)
- Rated plunger load, lbs (Kg): 14855 (6738)
- Maximum discharge pressure: psi (kPa)  
L- model: 1660 (11,445)  
M- model: 3025 (20,857)  
H- model: 5000 (34,474)
- Crankshaft extension: in. (mm)  
Diameter: 4.875 (123.8)  
Length long side: 11 11/16 (297)  
Length short side: 5 5/8 (143)  
Keyway (width x depth): 1 1/4 x 5/8 (32 x 16)  
Maximum recommended sheave in. (mm): 58 (1473)  
Minimum recommended sheave in. (mm): 36 (914)  
For larger sizes: Contact factory
- Pinion shaft extension  
If gear reducer is supplied, in.(mm)  
For belt chain drive: Contact factory  
For direct drive: Diameter: 3.5 (88.9)  
Length: 5 11/16 (145)  
Keyway (width x depth): 7/8 x 7/16 (22.2 x 11.1)
- Accessory gear reduction unit: 2.27:1, 2.89:1, 3.25:1, 3.36:1, 3.69:1, 4.38:1, 4.84:1, 5.63:1
- Oil capacity, gallons (L)  
Crankcase: 12 (45.5)  
Gear reducer, varies with ratio: 3.5 to 6.5 (13.2 to 24.6)
- Weight, pump only on wood shipping skids, lbs (Kg)  
M: 7308 (3315)
- Gear reducer, approx., lbs (Kg): 1558 (707)



Flange Connections			Dimensions					
Model	Suction Flange	Discharge Flange	A	B	C	D	E	F
415Q-5L	8" 150# ANSI FF	4" API 2000# RJ	6 1/4"	9 1/8"	48"	50"	69"	28 1/8"
415Q-5M	6" 300# ANSI RJ	3" 1500# ANSI RJ	4 7/8"	6 7/8"	44 1/2"	50"	68 1/2"	26"
415Q-5H	6" 300# ANSI RJ	2" 2500# ANSI RJ	4 1/2"	6 1/2"	44 1/2"	50"	68 1/2"	25"

# 415Q-5 Quintuplex Plunger Pump

## Technical Data - Imperial

						100		200		250		300		350		400	
	Plunger Dia. in.	Plunger Area sq in.	BPD per RPM	GPM per RPM	Max pressure PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
415Q-5L	4.500	15.9043	59.0141	1.7212	935	5901	172	11803	344	14754	430	17704	516	20655	602	23606	688
	4.375	15.0330	55.7811	1.6269	990	5578	163	11156	325	13945	407	16734	488	19523	569	22312	651
	4.250	14.1863	52.6391	1.5353	1045	5264	154	10528	307	13160	384	15792	461	18424	537	21056	614
	4.125	13.3640	49.5883	1.4463	1110	4959	145	9918	289	12397	362	14876	434	17356	506	19835	579
	4.000	12.5664	46.6284	1.3600	1180	4663	136	9326	272	11657	340	13989	408	16320	476	18651	544
	3.875	11.7932	43.7597	1.2763	1260	4376	128	8752	255	10940	319	13128	383	15316	447	17504	511
	3.750	11.0447	40.9820	1.1953	1345	4098	120	8196	239	10246	299	12295	359	14344	418	16393	478
	3.625	10.3206	38.2954	1.1170	1440	3830	112	7659	223	9574	279	11489	335	13403	391	15318	447
	3.500	9.6211	35.6999	1.0412	1545	3570	104	7140	208	8925	260	10710	312	12495	364	14280	416
415Q-5M	3.250	8.2958	30.7821	0.8978	1790	3078	90	6156	180	7696	224	9235	269	10774	314	12313	359
	3.000	7.0686	26.2285	0.7650	2100	2623	76	5246	153	6557	191	7869	229	9180	268	10491	306
	2.875	6.4918	24.0883	0.7026	2290	2409	70	4818	141	6022	176	7226	211	8431	246	9635	281
	2.750	5.9396	22.0392	0.6428	2500	2204	64	4408	129	5510	161	6612	193	7714	225	8816	257
	2.625	5.4119	20.0812	0.5857	2745	2008	59	4016	117	5020	146	6024	176	7028	205	8032	234
	2.500	4.9087	18.2142	0.5312	3025	1821	53	3643	106	4554	133	5464	159	6375	186	7286	212
415Q-5H	2.250	3.9761	14.7535	0.4303	3735	1475	43	2951	86	3688	108	4426	129	5164	151	5901	172
	2.125	3.5466	13.1598	0.3838	4190	1316	38	2632	77	3290	96	3948	115	4606	134	5264	154
	2.000	3.1416	11.6571	0.3400	4730	1166	34	2331	68	2914	85	3497	102	4080	119	4663	136
	1.875	2.7612	10.2455	0.2988	5000	1025	30	2049	60	2561	75	3074	90	3586	105	4098	120
Brake Horsepower Required						104		209		261		313		365		417	

## Technical Data - Metric

						100		200		250		300		350		400	
	Plunger Dia. mm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. per RPM	Max pressure kPa	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.
415Q-5L	114	102.608	0.3909	0.1086	6447	39.1	10.9	78.2	21.7	97.7	27.1	117.3	32.6	136.8	38.0	156.4	43.4
	111	96.987	0.3695	0.1026	6826	37.0	10.3	73.9	20.5	92.4	25.7	110.9	30.8	129.3	35.9	147.8	41.1
	108	91.524	0.3487	0.0969	7205	34.9	9.7	69.7	19.4	87.2	24.2	104.6	29.1	122.0	33.9	139.5	38.7
	105	86.219	0.3285	0.0912	7653	32.8	9.1	65.7	18.2	82.1	22.8	98.5	27.4	115.0	31.9	131.4	36.5
	102	81.073	0.3089	0.0858	8136	30.9	8.6	61.8	17.2	77.2	21.5	92.7	25.7	108.1	30.0	123.6	34.3
	98	76.085	0.2899	0.0805	8687	29.0	8.1	58.0	16.1	72.5	20.1	87.0	24.2	101.5	28.2	116.0	32.2
	95	71.256	0.2715	0.0754	9273	27.1	7.5	54.3	15.1	67.9	18.9	81.4	22.6	95.0	26.4	108.6	30.2
	92	66.585	0.2537	0.0705	9928	25.4	7.0	50.7	14.1	63.4	17.6	76.1	21.1	88.8	24.7	101.5	28.2
	89	62.072	0.2365	0.0657	10652	23.6	6.6	47.3	13.1	59.1	16.4	70.9	19.7	82.8	23.0	94.6	26.3
415Q-5M	83	53.521	0.2039	0.0566	12342	20.4	5.7	40.8	11.3	51.0	14.2	61.2	17.0	71.4	19.8	81.6	22.7
	76	45.604	0.1738	0.0483	14479	17.4	4.8	34.8	9.7	43.4	12.1	52.1	14.5	60.8	16.9	69.5	19.3
	73	41.883	0.1596	0.0443	15789	16.0	4.4	31.9	8.9	39.9	11.1	47.9	13.3	55.9	15.5	63.8	17.7
	70	38.320	0.1460	0.0406	17237	14.6	4.1	29.2	8.1	36.5	10.1	43.8	12.2	51.1	14.2	58.4	16.2
	67	34.915	0.1330	0.0370	18926	13.3	3.7	26.6	7.4	33.3	9.2	39.9	11.1	46.6	12.9	53.2	14.8
	64	31.669	0.1207	0.0335	20857	12.1	3.4	24.1	6.7	30.2	8.4	36.2	10.1	42.2	11.7	48.3	13.4
415Q-5H	57	25.652	0.0977	0.0271	25752	9.8	2.7	19.5	5.4	24.4	6.8	29.3	8.1	34.2	9.5	39.1	10.9
	54	22.881	0.0872	0.0242	28889	8.7	2.4	17.4	4.8	21.8	6.1	26.2	7.3	30.5	8.5	34.9	9.7
	51	20.268	0.0772	0.0215	32612	7.7	2.1	15.4	4.3	19.3	5.4	23.2	6.4	27.0	7.5	30.9	8.6
	48	17.814	0.0679	0.0189	34474	6.8	1.9	13.6	3.8	17.0	4.7	20.4	5.7	23.8	6.6	27.1	7.5
Kilowatts Required						78		156		194		233		272		311	

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower Required is based on 90% Mechanical Efficiency. For Operation below 100 RPM, an auxiliary lubrication system is required. Not all plunger sizes are shown. Contact National Oilwell Varco for additional information. Spherical Valves must be installed when the pump is fitted with 4.0" or larger plungers.